

NUERA BAYVIEW LANDFILL PROJECT PLAN

Section 1 - Overview:

Several northern Utah public entities involved with the management, transportation, and disposal of municipal solid waste (MSW) have formed a working group to address various solid waste issues. The group, Northern Utah Environmental Resource Agency (NUERA) is comprised of the following entities from north to south:

Logan City
Weber County
Wasatch Integrated Waste Management District (WIWMD)
Trans-Jordan Cities
North Point Solid Waste Special Service District (NPSWSSD)
South Utah Valley Solid Waste District (SUVSWD)

One of NUERA's objectives is to continually evaluate ways to promote cost effective environmentally responsible methods for collect, transport, and disposal of solid waste in northern Utah.

This document is intended to define a project that NUERA has identified as potentially beneficial to some or all of the member entities. The project, as envisioned, would involve utilizing the existing Bayview Landfill (owned and operated by SUVSWD) as a regional landfill for NUERA members. The project would involve NUERA purchasing the Bayview Landfill (equipment and site improvements), transferring the existing landfill permit, transferring State of Utah School Trust Land leases, and bifurcating landfill closure and post-closure responsibilities (and associated funds).

Section 2 – Historic, and Current Landfill Operations:

Historic Bayview Operation: (Cornerstone Evaluation)

Participation (Tonnage) = 120,733 Tons	
Annual Landfill Operations Cost	\$2,894,084
Cost per Ton	\$23.97

Current Bayview Operations:

Participation (Tonnage) = 131,000 Tons	
Administration (1/3 of existing costs)	\$140,000
Annual Landfill Operations Costs*	\$2,247,603
Cost per Ton	\$18.23

* Closure / Post Closure dropped from \$417,889 to \$100,000

Section 3 – Future Landfill Operations:

Alternative 1: (SUVSWD plus North Pointe)

Alternative 1 includes the waste from SUVSWD and North Pointe which could be implemented at various time frames within the next 2 years. These alternative assumes that a facility Manager and additional operators would be hired and that existing equipment could process the waste. The cost for oil, fuel, filters, and equipment repair have been increased proportional to the additional tonnage for each of the alternatives. Sinking funds for the replacement of liner and compactor have been included. A 2.5% contingency is added to the total projected cost of operation for each alternative.

Alternative 1a: (SUVSWD plus 20% of North Pointe)

The 20% of North Pointe waste alternative represents the maximum amount that the District can transfer until 2018 according to the existing contract with Republic.

No additional personnel.

No additional equipment.

Participation (Tonnage) $131,000 + 34,800 = 165,800$ Tons

Annual Landfill Operations Cost
Cost per Ton

\$2,579,551
\$15.56

Alternative 1b: (SUVSWD plus 60% of North Pointe)

The 60% of North Pointe waste is the minimum amount of waste that the District would process if Republic were to build a transfer station and divert the commercial waste that they process from North Pointe.

One additional operator.

One truck tipper.

Participation (Tonnage) $131,000 + 104,400 = 235,400$ Tons

Annual Landfill Operations Cost
Cost per Ton

\$3,100,360
\$13.17

Alternative 1c: (SUVSWD plus 100% of North Pointe)

Alternative 1c models all of SUVSWD waste and all of North Pointes waste.

No additional personnel.

No additional equipment.

Participation (Tonnage) $131,000 + 174,000 = 305,000$ Tons

Annual Landfill Operations Cost
Cost per Ton

\$3,421,294
\$11.22

Alternative 2: (SUVSWD, North Pointe, and Weber County)

Alternative 2 includes the waste from SUVSWD, North Pointe, and Weber County which could be implemented within the next 2 years. This alternative utilizes the personnel from Alternative 1c and adds another operator and a laborer. This alternative also provides for an additional compactor. The cost for oil, fuel, filters, and equipment repair have been increased proportional to the additional tonnage. A 2.5% contingency is added to the total projected cost of operation for each alternative.

One additional operator and one additional laborer.

One additional compactor and one additional tipper.

Participation (Tonnage) $131,000 + 174,000 + 185,000 = 490,000$ Tons

Annual Landfill Operations Cost	\$4,826,712
Cost per Ton	\$ 9.85

Alternative 3: (SUVSWD, North Pointe, Weber County and Wasatch Integrated)

Alternative 3 includes the waste from SUVSW, North Pointe, Weber County, and Wasatch Integrated. The estimated timeframe for Wasatch to divert waste would be in approximately 15 years. This alternative utilizes the personnel and equipment from Alternative 2 and adds another operator. The cost for oil, fuel, filters, and equipment repair have been increased proportional to the additional tonnage. Depreciation is increased to reflect a new dozer. A 2.5% contingency is added to the total projected cost of operation for each alternative.

One additional operator.

One additional dozer.

Participation (Tonnage) $131,000 + 174,000 + 185,000 + 110,000 = 600,000$ Tons

Annual Landfill Operations Cost	\$5,600,090
Cost per Ton	\$ 9.33

Alternative 4: (SUVSWD, North Pointe, Weber County, Wasatch Integrated and Trans Jordan)

Alternative 4 includes the waste from SUVSW, North Pointe, Weber County, Wasatch Integrated and Trans Jordan. The estimated timeframe for the addition of the Trans Jordan waste is approximately 17 years. This alternative utilizes the personnel and equipment from Alternative 3, and adds another operator and laborer. Another compactor is also added to the depreciation costs. The cost for oil, fuel, filters, and equipment repair have been increased proportional to the additional tonnage. A 2.5% contingency is added to the total projected cost of operation for each alternative.

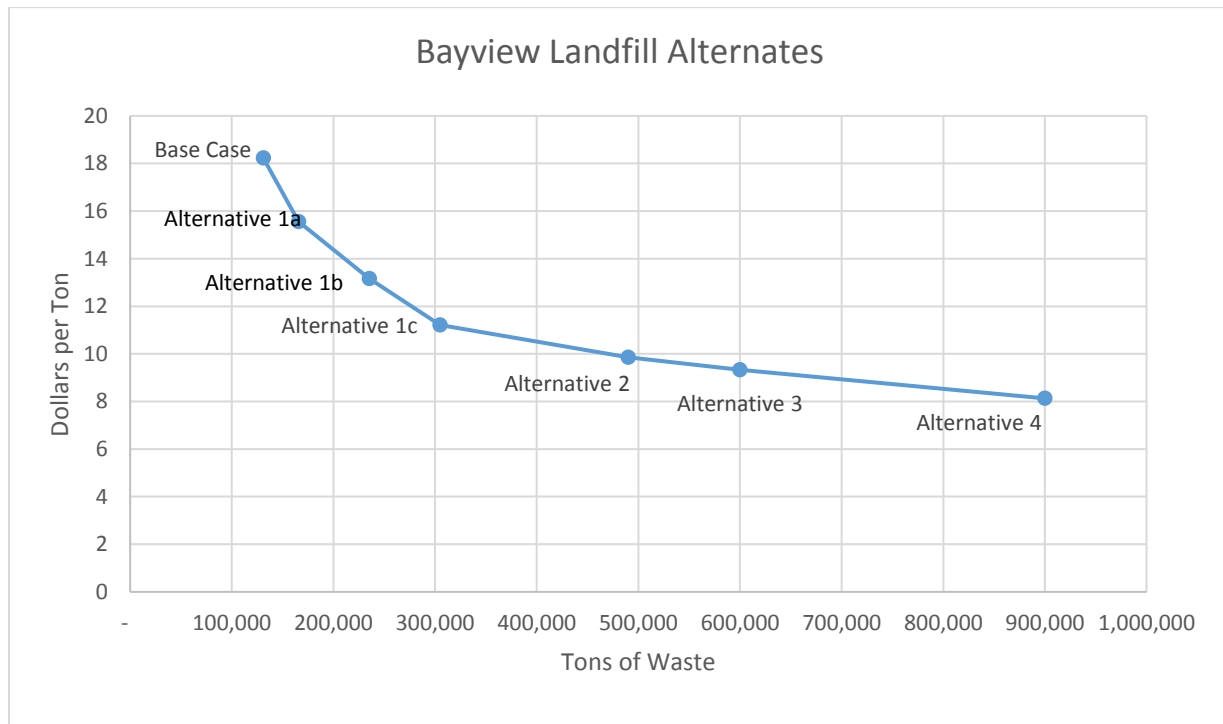
One additional operator and one additional laborer.

One additional compactor.

Participation (Tonnage) $131,000 + 174,000 + 185,000 + 110,000 + 300,000$
 $= 900,000$ Tons

Annual Landfill Operations Cost	\$7,319,918
Cost per Ton	\$ 8.13

Section 4 - Alternative Summary:



Section 5 – Transportation Costs:

Transportation costs are a direct function of time which is proportional to distance that the delivery vehicle travels. Current quotes for shipping (given to Weber County and SUVSWSSD engineers) range from \$1.90 to \$2.25 per mile. For the comparison of transportation costs, the higher cost of \$2.25 per mile was utilized.

Additionally, current loads of waste shipped to Wasatch Regional Landfill are approximately 40 - 42 tons per load. Research by SUVSSD and Weber County confirm that all entities associated are able to utilize transport trailers that will match the existing 40 – 42 tons per load. For comparison of the transportation costs, 40 tons per load was utilized.

The following table presents the round-trip distance, the cost per load, and the associated cost-per-ton from each of the NUERA facilities to the Wasatch Regional Landfill and to the Bayview Landfill:

		ROUND TRIP (Miles)		COSTS PER TRIP (40 Tons per Load)		COSTS (PER TON) (Dollars)	
		WASATCH REGIONAL LANDFILL	BAYVIEW LANDFILL	WASATCH REGIONAL LANDFILL	BAYVIEW LANDFILL	WASATCH REGIONAL LANDFILL	BAYVIEW LANDFILL
(Tons Per Year)							
SUVSWD	131,000	198	64	\$445.50	\$144.00	\$11.14	\$3.60
NPSWSSD	174,000	186	74	\$418.50	\$166.50	\$10.46	\$4.16
WEBER	185,000	178	188	\$400.50	\$423.00	\$10.01	\$10.58
WASATCH	110,000	170	172	\$382.50	\$387.00	\$9.56	\$9.68
TJL	303,000	115	88	\$258.75	\$198.00	\$6.47	\$4.95

Highlighted numbers indicate the most cost effect solution for shipping.

Section 6 – Unloading Costs:

In order to take advantage of the 40 – 42 tons of waste per load, NUERA facilities will need to utilize light weight trailers. The weight restrictions of the trailers will eliminate the use of walking floor trailers. The costs for tipping equipment is included in Section 3 – Future Landfill Operations.

Section 8 – Total Cost of Shipping, Unloading and Disposal:

The total per ton costs of shipping, unloading, and disposal for each of the NUERA facilities is as follows:

SUVSWSSD:

North Pointe:

	Expected Cost / Ton (+/- 10%)
NPSWSSD to Wasatch Regional = \$ 22.88 per ton	
NPSWSSD to Bayview (Alt. 1a.) = \$4.16 + \$ 15.56 = \$ 19.72	(\$17.75 - \$21.69)
NPSWSSD to Bayview (Alt. 1b.) = \$4.16 + \$ 13.17 = \$ 17.33	(\$15.60 - \$19.06)
NPSWSSD to Bayview (Alt. 1c.) = \$ 4.16 + \$ 11.22 = \$15.38	(\$13.84 - \$16.92)
NPSWSSD to Bayview (Alt. 2.) = \$4.16 + \$ 9.85 = \$ 14.01	(\$12.61 - \$15.41)
NPSWSSD to Bayview (Alt. 3.) = \$4.16 + \$ 9.33 = \$ 13.49	(\$12.14 - \$14.84)
NPSWSSD to Bayview (Alt. 4.) = \$4.16 + \$ 8.13 = \$ 12.29	(\$11.06 - \$13.51)

Weber County:

Wasatch Integrated:

Trans Jordan:

Section 7 – Additional Steps:

Transfer State of Utah Solid Waste Permit

Transfer State of Utah School Trust Lands Lease

Bifurcation of Closure / Post-Closure Care Funds

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